



## Factors driving hantavirus emergence in Europe

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**Year:** 2013  
**Journal:** Current Opinion in Virology. 3 (1): 92-99

### Abstract:

Hantaviruses cause hemorrhagic fever with renal syndrome (HFRS) in Eurasia. In Europe both the amplitude and the magnitude of outbreaks of HFRS have increased. The mechanisms that drive the incidences are complex and multi-factorial and only partially due to increased awareness and improved diagnostic tools. Risk determinants include reservoir ecology, virus ecology and anthropogenic factors. The dogma of one specific rodent species as primordial reservoir for a specific hantavirus is increasingly challenged. New hantaviruses have been discovered in shrews, moles and bats and increasing evidence points at host-switching events and co-circulation in multiple, sympatric reservoir species, challenging the strict rodent-virus co-evolution theory. Changing landscape attributes and climatic parameters determine fluctuations in hantavirus epidemiology, for instance through increased food availability, prolonged virus survival and decreased biodiversity.

**Source:** <http://dx.doi.org/10.1016/j.coviro.2013.01.002>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

#### Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

#### Geographic Location:

resource focuses on specific location

Non-United States

**Non-United States:** Europe

#### Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

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**Infectious Disease:** Zoonotic Disease

**Zoonotic Disease:** Hantavirus Pulmonary Syndrome

**Mitigation/Adaptation:** 

mitigation or adaptation strategy is a focus of resource

Adaptation

**Resource Type:** 

format or standard characteristic of resource

Review

**Timescale:** 

time period studied

Time Scale Unspecified

**Vulnerability/Impact Assessment:** 

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content